

CLAIMS

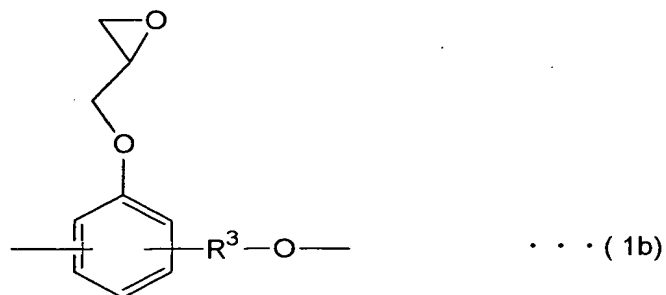
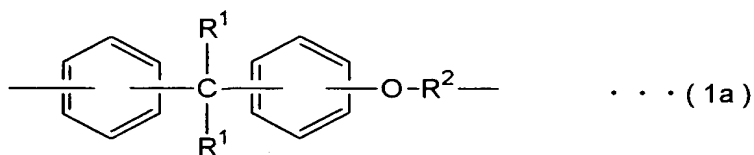
1. A photosensitive resin composition, comprising:

(A) a polymer having a carbon-carbon double bond and carboxyl group, formed by the reaction of an acid anhydride with the reaction product of an epoxy compound having a repeating unit expressed by the following general formula (1a) and a repeating unit expressed by the following general formula (1b) with an unsaturated carboxyl compound having a carbon-carbon double bond and a carboxyl group,

(B) a photopolymerizable monomer,

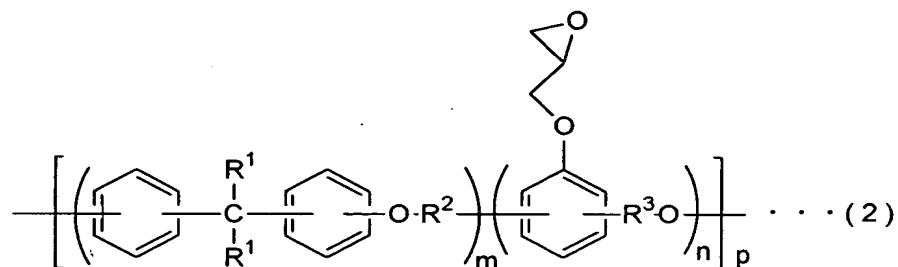
(C) a radical photopolymerization initiator, and

(D) a curing agent having reactivity with a functional group of said polymer and/or said photopolymerizable monomer:



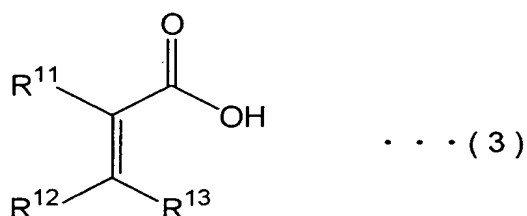
[in the formula, R¹ is a hydrogen atom or methyl group, R², R³ are alkylene groups].

2. The photosensitive resin composition according to Claim 1, wherein said epoxy compound is an epoxy compound expressed by the following general formula (2):



5 [in the formula, R^1 is a hydrogen atom or methyl group, R^2 , R^3 are alkylene groups, m , n are positive integers such that $m+n=2-50$, and p is a positive integer].

3. The photosensitive resin composition according to Claim 1 or 2, wherein said unsaturated carboxyl compound is a compound expressed by the following general formula (3):



[in the formula, R^{11} is a hydrogen atom or alkyl group, and R^{12} , R^{13} are independently a hydrogen atom, alkyl group, aryl group, styryl group, furfuryl group or cyano group].

15 4. The photosensitive resin composition according to any one of Claims 1-3, wherein said unsaturated carboxyl compound is (meth)acrylic acid.

5. The photosensitive resin composition according to Claim 1 or 2, wherein said unsaturated carboxyl compound is a

monoester of a dibasic acid having a carbon-carbon double bond.

6. The photosensitive resin composition according to Claim 5, wherein said monoester is a monoester obtained by reacting an acid anhydride with a (meth)acrylate compound having a hydroxyl group.

7. The photosensitive resin composition according to any one of Claims 1-6, further containing an elastomer.

8. The photosensitive resin composition according to any one of Claims 1-7, further containing a phenoxy resin.

9. The photosensitive resin composition according to any one of Claims 1-8, further containing a block isocyanate.

10. The photosensitive resin composition according to any one of Claims 1-9, further containing a non-elastomer-like polymer of a polymerizable compound having a carbon-carbon double bond.

11. A photosensitive element comprising a support, and a photosensitive resin composition layer composed of the photosensitive resin composition according to any one of Claims 1-10 formed on said support.

12. A method of forming a resist pattern, comprising the steps of:

laminating a photosensitive resin composition layer of the photosensitive resin composition according to any of Claims 1-10 so as to cover a conductive layer, on an insulating substrate of a laminated substrate comprising

said insulating substrate and said conductive layer having a circuit pattern formed on said insulating substrate,

forming an exposed part by irradiating a predetermined part of said photosensitive resin composition layer with an activation light, and

removing parts except said exposed part in said photosensitive resin composition layer.

13. A printed circuit board, comprising an insulating substrate, a conductive layer having a circuit pattern formed on said insulating substrate and a resist layer formed on said insulating substrate so as to cover said conductive layer, wherein:

said resist layer is the cured product of the photosensitive resin composition according to any of Claims 1-10, and said resist layer has an opening so that at least part of said conductive layer is exposed.